HURRICANES OF 1952

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GENERAL SUMMARY

Hurricane activity in the Atlantic was below normal in 1952 for the first time since 1946. Six storms were charted and all of them attained hurricane force at some period in their histories. (See fig. 1.) Two of them would probably not have been discovered had it not been for the long arm of airplane reconnaissance because they remained over the Atlantic far to the east of the Lesser Antilles during their short life spans. The low hurricane activity was in keeping with past experience for summers with widespread drought over the eastern half of the United States. A study [1] of drought summers during the past half century indicates that on the average only about half as many hurricanes occur in the season following them as after normal or wet summers. This suggests that the general pressure distribution which causes widespread drought, reflects itself in lessened storm activity in the tropics as well.

As indicated above, only four of the hurricanes were charted west of 58° W. long. during the season, and only one of them reached the United States coast. This was the first storm of the season, designated "Able," which moved into South Carolina late on August 30, and advanced northward over the Atlantic Plain to die out over New England on September 2. Two persons lost their lives in South Carolina and one in Pennsylvania as an indirect result of this hurricane, while property and crop damage in the States affected has been estimated at $2,750,000, a very low damage figure. This hurricane was small and not unusually severe, but it had a small area of winds near 100 m. p. h. when it moved inland near Beaufort, S. C. The strongest winds occurred over a swampy area between Beaufort and Charleston, where there were few inhabitants and little property exposed [1].

The only other storm to strike land was hurricane "Fox" that passed over Cuba and the Bahama Islands in October. This was by far the most severe hurricane of the season when it reached the south Cuban coast 30 or 40 miles west of Cienfuegos. Lowest pressure was 933.6 mb. (27.57 inches) and maximum wind gusts reached 170 and 180 m. p. h. at the official weather station on Cayo Guano del Este just off the south Cuban coast. Aircraft flying into the hurricane reported torrential rain driven with such force by the wind that the paint was stripped from the nose and all leading surfaces of the plane, and turbulence was the most severe the crew had ever experienced. Fortunately no very large communities were hit in Cuba, but the rural areas affected were severely damaged. The excellent warning service is given credit for the fact that no lives were lost. Commander Millás of the National Observatory at Havana gave the Miami Hurricane Central the best possible cooperation, and the special surface and upper air observations furnished from Cuban stations made the excellent warnings possible. This was another of those very small but very severe hurricanes from the western Caribbean for which October is famous.

Hurricane Fox lost much of its violence in crossing Cuba, but retained winds of 100 m. p. h. or better as it moved on an erratic course through the Bahama Islands. (See fig. 2.) The erratic swing to east and east-southeast was not indicated by meteorological conditions, and even more unusual was its swing back northward to its normal course after reaching the vicinity of Watling Island.

The other two, of the four hurricanes that moved over the western Atlantic during the season, remained at sea and did not affect any land areas.

A total of 112 advisory bulletins was issued in connection with the season's storms, which was far below the number of recent years. Reconnaissance flights were correspondingly fewer than usual, and the work at the Central was the lightest since coordinated warning service and reconnaissance was established.

INDIVIDUAL HURRICANES

ABLE. August 25–September 2, 1952.—The first hurricane of the 1952 season was discovered as a slowly developing wave about 600 miles east of Puerto Rico on August 25. During the next several days, aircraft reported it to be a crescent-shaped, partially developed, squally wave, with winds of hurricane force on the northeastern side, but open in the southern semicircle, where winds were only about 25 knots. This state of development continued as it moved on a northwest course for about 2,000 miles until the 29th, when the first evidence of a more completed organization was observed. When it reached the vicinity of 30° N., 80° W., it turned northward, skirted the Georgia coast, and moved inland over South Carolina near Beaufort between 10 and 11 p. m., August 30. It was the

[1] An informal unpublished study.

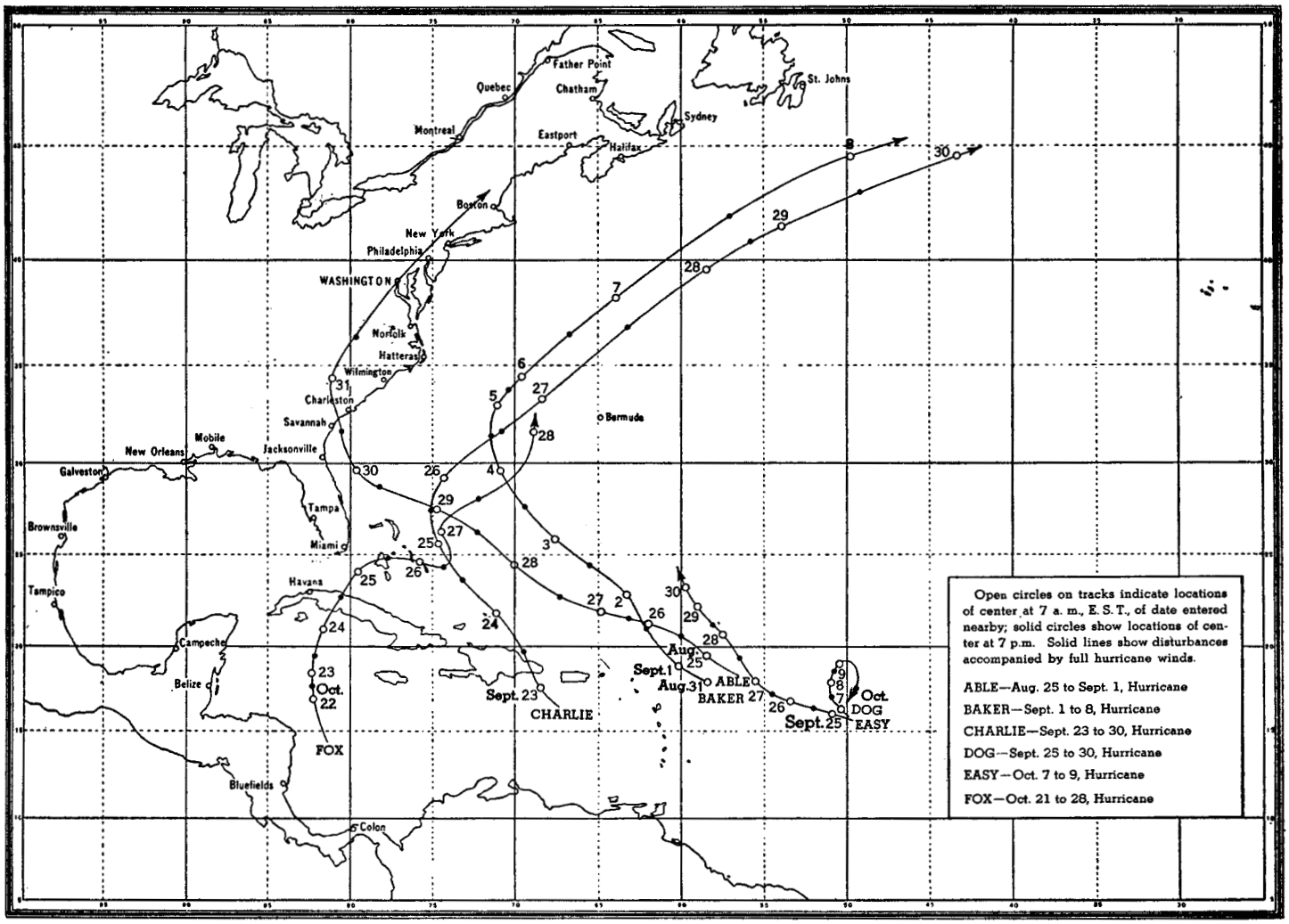

FIGURE 1.—Tracks of hurricanes observed during the 1952 season.

indirect cause of two deaths in South Carolina, and one death in Pennsylvania, and property and crop damage in the Atlantic States was estimated at $2,750,000. For an analysis of this hurricane and further detailed information, see *Monthly Weather Review* for August 1952, pages 138–143 [1].

BAKER. September 1–8, 1952.—The Norwegian S. S. *Fridtjof Nansen* located at 18°45′ N., 58°45′ W. in the early morning of September 1 sent a special report as follows: "Wind easterly force 7 to 8 in squalls, sea 5 increasing, barometer 30.02 inches at 0300Z, 29.90 at 0400Z. Fear tropical storm and have altered course to 70° 8 knots at 0400Z, after which barometer steady at 29.90 inches." This report was the first indication of the development of the second hurricane of the season. Reconnaissance aircraft dispatched to search later on the 1st, found that the storm had developed winds of hurricane force on its northern and eastern sides and was increasing and moving on a northwesterly course.

The course continued northwestward during the next several days, until it reached the vicinity of 32° N., 71° W., on September 5. Here it began curving along a course which carried the center about midway between Cape Hatteras and Bermuda on the 6th and then northeastward over the Atlantic. In the period September 2–6 winds were estimated at 100–115 m. p. h. with gusts to 140 m. p. h. This hurricane remained at sea and did not give strong winds at any land point. It moved out over the Atlantic several hundred miles south of Newfoundland on September 7 and 8, and passed beyond aircraft range. A total of 25 advisories were broadcast enabling shipping to avoid the hurricane or maneuver to miss the strongest part, and no reports of marine damage have been received.

CHARLIE. September 23–29, 1952.—An easterly wave moved into the eastern end of the Carribean Sea on September 22 and showed some signs of developing a center just south of Mona Passage on September 23. Just prior to this, the wave caused heavy flooding rains on Puerto Rico September 22–23, which caused four deaths and damage estimated at $1,000,000, but no strong winds were reported [2].

The incipient center noted on the 23d moved northwestward over the Dominican Republic during the day and lost its identity, but on the 24th there were signs of a re-forming center near Turks Island, with strongest winds about 20 to 30 knots. An airplane dispatched to reconnoiter the area east of the Bahama Islands on the 25th found the small hurricane with winds 80 to 90 knots near 26° N., 74°30′ W., moving north-northwestward. It recurved to the northeast on the 26th and passed some distance to the northwest of Bermuda on the 27th, continuing northeastward over the Atlantic to pass 400 miles or more southeast of Newfoundland on September 29 and 30. Strongest winds in connection with this hurricane were around 120 to 125 m. p. h. estimated by aircraft on the 26th. Thereafter it gradually lost force. With the exception of the flood damage noted above in Puerto Rico, no damage has been reported.

DOG. September 25–30, 1952.—An easterly wave was discovered over the Atlantic about 700 miles east of the Lesser Antilles on September 25. It showed signs of intensifying, and on the 26th aircraft searching the area encountered squalls of 68 knots over a considerable area in the northern quadrant of the wave around 16° to 18° N., and 54° W. Winds in the northeast quadrant were estimated at 100 m. p. h., but a closed center of circulation could not be found. By the 27th winds had weakened to 45 knots and it continued losing force as it moved northwestward and finally died out by September 30 near 23° N., 60° W. While winds of hurricane force in squalls were reported at one time, all evidence indicates that this storm remained a wave and did not develop an organized center of circulation.

EASY. October 7–9, 1952.—This storm flared briefly to hurricane intensity and then as rapidly dissipated over the Atlantic about 700 miles east of Antigua, B. W. I. It was located by reconnaissance aircraft on October 7 with maximum winds of only about 40 knots, but on the 8th, the plane encountered winds of 95 knots near the center. The flight on October 9 found that winds had dropped to 42 knots and thereafter it died out. The hurricane moved very little during its existence, but remained in the vicinity of 17°–18° N., and 50°–51° W. Without the extension of our view provided by B–29 reconnaissance planes, this hurricane would doubtless have gone undetected.

FOX. October 22–28, 1952.—The last hurricane of the 1952 season was the most severe. It developed from a perturbation on the intertropical convergence zone that was first noted in the western Caribbean Sea north of the Canal Zone on October 21. It increased to hurricane force on the 22d when it was about 150 miles east of Swan

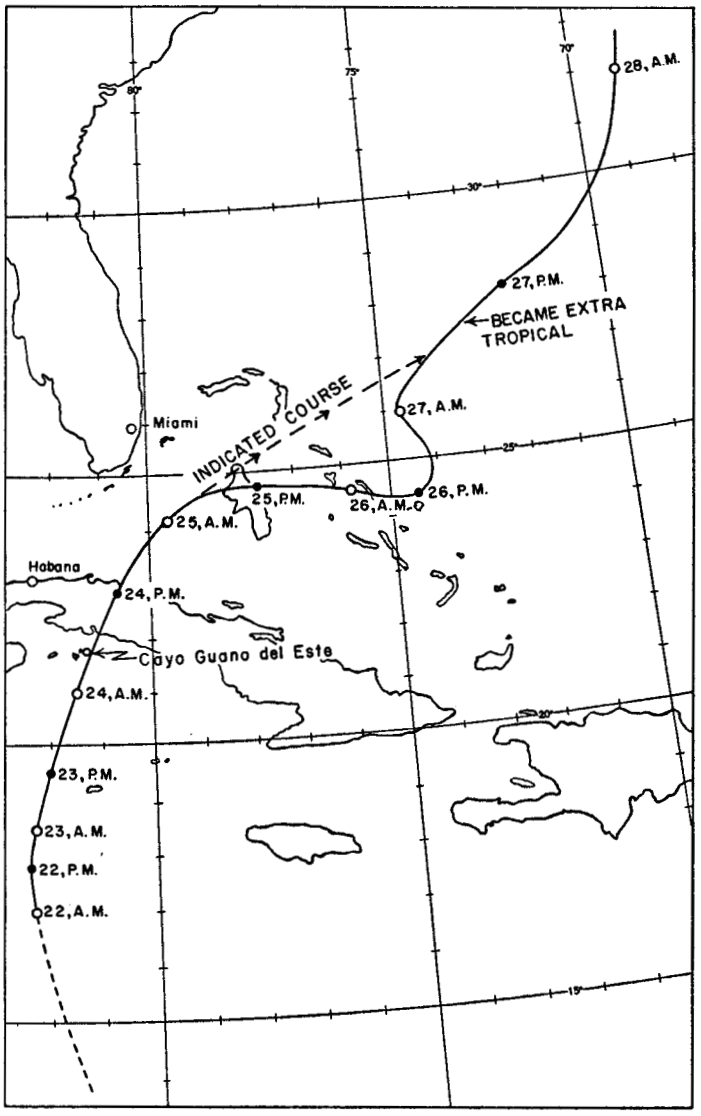

FIGURE 2.—Track of hurricane "Fox," October 1952. Note unusual path between 25th and 27th.

Island, and thereafter moved northward with increasing intensity and crossed Cuba on the 24th as the very severe small hurricane described earlier in this article. The passage over Cuba was through the rural sugar cane plantation section, and it was reported that 36 of Cuba's 161 sugar mills were in the storm area and suffered damage in addition to the heavy damage to the cane crops. The largest community struck was the inland town of Aguada de Pasajeros (25,000 population) where about 600 homes were destroyed, and a thousand or more damaged. No dollar estimate of the damage has been received, but no lives were lost. Strongest winds reported 180 m. p. h. and lowest pressure 933.6 mb. (27.57 inches) at Cayo Guano del Este.

In the Bahamas, winds of 100 m. p. h. or a little higher attended the erratic course. The station on Cat Island reported 110 m. p. h. for the strongest wind, and about 100 m. p. h. was reached on Watling and Eleuthera Islands, and a few others. In the southern part of Eleuthera Island crops suffered severe damage from wind and heavy rain. It was estimated that 30 percent of the tomato crop was destroyed. After clearing the Bahamas the storm swung back north to resume a more normal course, it was joined by an old polar front and became a wave disturbance of extra-tropical character. It moved northeastward thereafter as a disturbance of no great violence and passed to the northwest of Bermuda on October 28. (See fig. 2.)

REFERENCES

1. R. B. Ross, "Hurricane Able, 1952," *Monthly Weather Review*, vol. 80, No. 8, August 1952, pp. 138–143.
2. Thomas L. Long, "Puerto Rico Floods, September 1952," Special Bulletin published by WBO San Juan, October 1952.